

*Claims*

1. A tubular stairlift rail of non-circular cross-section having an internal surface and an external surface, said internal surface defining a single cavity within said rail; said external surface being free of fabricated additional members positioned to prevent rotation of a stairlift carriage about said rail.  
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2. A tubular stairlift rail of substantially constant cross-section for use with a stairlift carriage, said carriage having support rollers to support said carriage for movement along said rail, said rail having a single internal cavity; roller engagement surfaces formed in the outer periphery thereof, said roller engagement surfaces being configured to, in combination with  
10 said rollers, prevent rotation of said carriage about said rail.
3. A rail as claimed in claim 2 wherein the arrangement of said roller engagement surfaces about the cross-section of said rail is configured to contribute bending strength to said rail.
- 15 4. A rail as claimed in claim 2 or claim 3 wherein said roller engagement surfaces are arcuate when viewed along the cross-section of said rail.
5. A rail as claimed in any one of claims 1 to 4 wherein said cross-section is devoid of right-angles corners.

6. A rail as claimed in any one of claims 1 to 5 which, when aligned in its intended mounting position, has a maximum vertical dimension greater than the maximum lateral dimension.
7. A rail as claimed in claim 6 wherein the maximum vertical dimension is in the order of twice the maximum lateral dimension.
8. A rail as claimed in any one of claims 1 to 7 wherein said rail is symmetrical about both vertical and horizontal axis when said rail is aligned in its intended mounting position.
9. A stairlift rail of substantially constant cross-section, all the elements which define said cross section being arranged about a common internal cavity, said cross-section including roller engagement surfaces arranged to:
  - (i) support a stairlift carriage for rolling movement along said rail; and
  - (ii) in combination with said carriage, resist rotation of said carriage about said rail.
10. A rail as claimed in claim 9 wherein those roller engagement surfaces configured to provide resistance to the rotation of said carriage about said rail are also configured to contribute bending strength to said rail.

11. A stairlift rail, said stairlift rail being characterised in that the cross-section thereof is non-circular but devoid of right-angled corners; said cross-section being symmetrical about both vertical and horizontal axes when said rail is aligned in its intended mounting configuration.
- 5 12. A stairlift rail, said stairlift rail being characterised in that it is roll formed and the cross-section thereof is non-circular and configured to provide resistance to rotation of a stairlift carriage about the axis thereof.
13. A stairlift rail when constructed arranged and operable substantially as here described and illustrated with reference to the accompanying  
10 drawings.
14. A stairlift assembly including a rail as claimed in any one of the preceding claims.